intervention for rupture (n = 2), symptoms (n = 13) or size. Mean size at intervention was 2.2 cm (range, 0.8-3.7). Fifteen patients underwent open repair while 28 (including all ruptures) underwent EV embolization (n = 26) or covered stent exclusion (n = 2). In the open surgical cohort seven patients underwent aneurysmectomy, while eight underwent aneurysmectomy with splenectomy. In the elective EV cohort technical success was noted in all patients; both patients managed for rupture required either intra-operative or delayed conversion to splenectomy for hemodynamic instability and splenic infarction respectively. No major operative morbidity or mortality was identified following elective open or EV repair. No recurrence, aneurysm-related mortality or major morbidity was identified during a mean follow-up of 42 months (range, 0-89).

Conclusions: This contemporary experience is comparable to our historical experience in female predominance, aneurysm size at intervention, and postoperative morbidity and mortality justifying the current EV approach. There has been a reduction in grand multiparity by half (25% to 13%). Rupture remains a recognized risk which carries notable morbidity and mortality.

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RR14.

Covered Stents Convey Improved Performance Over Bare-Metal Stents for Atherosclerotic Renal Artery Stenosis

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Objectives: The endovascular management of atherosclerotic renal artery stenosis (RAS) has evolved over several decades. Endovascular therapy with stents (PTAS) often utilizes balloon-expandable bare-metal stents due to their radial force. However, restenosis frequently occurs. No studies have investigated the patency of covered stents in comparison to bare-metal stents in the treatment of RAS.

Methods: We performed a retrospective chart review of 197 patients at our institution who underwent renal artery stenting for atherosclerotic RAS from 2005-2011. 179 patients were included with a total of 206 stented renal arteries and 226 PTAS interventions. Index cases as well as first and second reinterventions were examined.

Results: 179 patients were included in the study with a total of 226 interventions performed with PTAS. Of these interventions, 195 were index (first) procedures. 20 PTAS were in vessels which had required one previous intervention and 11 PTAS were in vessels that required two previous interventions. The average follow-up was 30 months. 48 vessels were treated with angioplasty and covered stents and 178 vessels were treated with angioplasty and bare-metal stents. 4 of 48 (8.3%) in the covered stent group and 41 vessels of 178 (23%) in the bare-metal stent group developed restenosis requiring intervention. Primary patency for covered stents was 100% at 12 months and 93% at 24 months; bare metal stent patency was 83% at 12 months and 74% at 24 months. There was a statistical significance in patency in comparing covered stents to bare-metal stents with $P < .045$ in the overall study.

Conclusions: While initial success was seen in treating RAS with bare-metal stents, covered stents confer increased primary patency and decreased need for repeat secondary interventions. Covered stents should be considered in renal artery stenting for both primary index procedures and secondary interventions due to their improved performance over bare-metal stenting for ostial RAS.

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R2: Rapid Paced Paper Session II

RR15.

Genetic Correlates of Cognitive Change in Patients Undergoing Carotid Interventions

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Objectives: Carotid interventions have been shown to decrease stroke risk and improve cerebral perfusion. However, nearly 40% of patients who undergo carotid revascularization procedures experience cognitive deterioration. We have demonstrated that subclinical microembolization is associated with memory decline. The role of genetic factors in cognitive function is unclear. We herein seek to assess genetic determinants as potential risk factors for these procedures.

Methods: Over one year period, patients undergoing carotid interventions at a single academic institution were recruited to participate. Patients underwent neuropsychological testing two weeks prior to and at one month following their procedure and MRI prior to and within 48 hours following their procedure. Saliva samples were collected for genetic testing and demographics were recorded. Logistic regressions were used to search for associations.

Results: 34 patients were included (18 CAS, 16 CEA); all were male with a mean age of 68. The majority of patients exhibit hypertension (94%) and have a history

of smoking (76%). Other co-morbidities included diabetes (47%), obesity (35%), and CAD (44%). Consistent with previous findings, CAS was associated with higher incidence of microemboli ($P = .0005$) and with susceptibility to memory decline ($P = .0085$). Negative univariate associations were found for 5-HTT (serotonin transporter) short alleles with memory decline ($P = .016$) and brain-derived neurotrophic factor (BDNF) polymorphism with incidence of microemboli ($P = .018$). After adjusting for ApoE risk alleles, incidence of microemboli trended with memory decline ($P = .099$).

Conclusions: Despite a small number of patients, our study showed that genetic polymorphisms such as 5-HTT, BDNF, and ApoE may provide additional insight on post-operative changes in cognition. Further investigation of these polymorphisms is warranted to understand and potentially prevent cognitive deterioration following carotid revascularization procedures.

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RR16.

Symptom Status and Degree of Ipsilateral Stenosis Determine Whether Contralateral Stenosis Increases the Risk for Carotid Revascularization

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Objectives: The impact of degree of contralateral stenosis on outcome after CAS and CEA remains unknown. We aimed to identify those patients at increased procedural risk due to contralateral stenosis or occlusion (CO).

Methods: All patients undergoing CEA or CAS in the Vascular Study Group of New England were identified from 2003-2011. Patients were stratified by symptom status and degree of ipsilateral stenosis. Primary endpoint was any stroke or death (S/D) at 30 days. Bivariate and multivariable analyses (adjusted for age, gender and procedure) were done to assess the impact of the degree of contralateral stenosis as assessed by Duplex Ultrasound.

Results: 9362 CEA patients (33.4% symptomatic [sx]) and 663 CAS patients (34.4% sx) were included. Contralateral disease did not impact outcome in asymptomatic (asx) patients with 50-80% ipsilateral stenosis. Asx patients with ipsilateral >80% stenosis and CO had significantly increased S/D rate (3.4%; $P < .01$; OR, 5.4 [2.6-11.4]). Sx patients with >80% ipsilateral stenosis were not impacted by contralateral stenosis, while those with 50-80% ipsilateral stenosis and 80-99% contralateral stenosis had the highest S/D rate (6.9%; $P = .05$; OR, 5.1 [1.1-24.7]).

Conclusions: The impact of contralateral disease on outcome after carotid revascularization is different for asx vs sx patients. Regardless of procedure, CO increases the risk for asx patients with >80% ipsilateral stenosis, while 80-99% contralateral stenosis increases the risk for sx patients with 50-80% ipsilateral stenosis.

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RR17.

Predictors of 30-Day Readmission and Postdischarge Mortality Following Carotid Endarterectomy in the ACS-NSQIP

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Objectives: Postoperative readmission is associated with increased morbidity and mortality. We evaluated risk factors for readmission and postdischarge mortality following carotid endarterectomy (CEA) in the ACS-NSQIP.

Methods: All patients undergoing CEA without concurrent cardiac procedure in the 2011 NSQIP were identified. Independent predictors of 30-day readmission and postdischarge mortality were determined using multivariable logistic regression.

Table. Thirty-day stroke/death rate in symptomatic and asymptomatic undergoing CEA or CAS

	CS < 50%		*CS 50-79%*		*CS 80-99%*		*CO*			*Total*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*P value*	*No.*	*%*
ASX											
Ipsi 50-80% (n = 1655)	9	0.9	3	0.6	0	0	1	0.9	.88	13	0.8
Ipsi >80% (n = 4945)	18	0.7	14	0.9	1	0.3	12	3.4	<.001	45	0.9
SX											
Ipsi 50-80% (n = 1115)	10	1.4	7	2.4	2	6.9	3	5.1	.05	22	2.0
Ipsi >80% (n = 2195)	25	2.1	11	1.7	6	3.5	2	1.7	.56	44	2.1

ASX, Asymptomatic; *CO,* contralateral occlusion; *CS,* contralateral stenosis; *ISPI,* ipsilateral; *SX,* symptomatic.